

WHAT IS CLAIMED IS:

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1. A method of manufacturing a nonreciprocal circuit device comprising a metal case containing central conductors, a ferrite core arranged near the central conductors, and a permanent magnet for applying a static magnetic field to the ferrite core, the method comprising marking information onto the metal case by irradiating the metal case with a laser beam.

2. The method of manufacturing a nonreciprocal circuit device according to Claim 1, further comprising heating (the entire nonreciprocal circuit device) after the information has been marked onto the metal case.

3. The method of manufacturing a nonreciprocal circuit device according to Claim 2, further comprising magnetizing or demagnetizing the permanent magnet to adjust (its) magnetic force prior to the heating step.

4. The method of manufacturing a nonreciprocal circuit device according to Claim 2, wherein the heating step both removes stains caused by the laser marking and thermally demagnetizes the permanent magnet.

5. The method of manufacturing a nonreciprocal circuit device according to Claim 2, wherein the heating temperature in the heating step is set between 110° and 210°C.

6. The method of manufacturing a nonreciprocal circuit device according to Claim 2, further comprising applying solder paste to portions where the components comprising the nonreciprocal circuit device are bonded with each other, prior to the heating step.

7. The method of manufacturing a nonreciprocal circuit device according to Claim 6, wherein the heating temperature in the heating step is set between 210° and 310°C.

8. The method of manufacturing a nonreciprocal circuit device according to Claim 1, wherein the metal case comprises an upper yoke and a lower yoke and the laser marking is performed onto the upper yoke before the upper and lower yokes are bonded with each other.

9. The method of manufacturing a nonreciprocal circuit device according to Claim 1, wherein the laser marking is performed by continuously irradiating a laser beam onto the metal case.

10. The method of manufacturing a nonreciprocal circuit device according to Claim 1, wherein the laser marking is performed by irradiating the metal case with a pulsed laser beam.

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11. The method of manufacturing a nonreciprocal circuit device according to Claim 1, wherein the laser beam has a wavelength of 10 μm or less.

12. The method of manufacturing a nonreciprocal circuit device according to Claim 1, wherein the used laser is a YAG laser or a YVO_4 laser.

13. A nonreciprocal circuit device comprising:
central conductors;
a ferrite core arranged near the central conductors;
a permanent magnet for applying a static magnetic
5 field to the ferrite core; and
a metal case containing the central conductors, the
ferrite core, and the permanent magnet;
wherein a coating layer including a silver layer is
formed on a surface of the metal case to enable the
10 silver layer to be marked with a laser beam.

14. The nonreciprocal circuit device according to Claim 13, further comprising a layer formed of nickel or copper arranged under the silver layer.

15. The nonreciprocal circuit device according to Claim 13, wherein the entire thickness of the coating layer is 3 μm or more.

16. The nonreciprocal circuit device according to Claim 13, further comprising a nickel layer formed on the silver layer.

17. A communication apparatus comprising the nonreciprocal circuit device according to Claim 13.

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